

Perforated Materials

An example of the technical assistance provided industry and government clients by NASA's Industrial Applications Centers is a research task performed for National Perforating Corporation (NPC), Clinton, Massachusetts. NPC, a member of the Industrial Perforators Association (IPA), is a supplier of perforated metals, plastics and other materials exemplified by the accompanying photos. At right is a metal sheet coming off the perforating press, the first step in the manufacturing process. Below is a perforated screen used for the processing of pulp in paper manufacturing. In producing screens, walkways and other products for all industries, the company and the IPA sought to determine the safe loading of such perforated metal products. Unable to find the needed information, the association was considering commissioning a study, which would have entailed considerable expense.

Before going ahead with the study, the company requested assistance from NASA's New England Research Application Center (NERAC) at the University of Connecticut. NERAC conducted an extensive computer search and supplied NPC an informational package, including identification of a firm which had already accomplished substantial study, test and evaluation of the strengths of perforated materials. NPC found that the information sought was available from that firm—at a fraction of what a new study would have cost, with a bonus in time saving. Assistance provided by NERAC will be shared by the association's 14 other member companies. The NERAC study also provided NPC and the IPA with many other sources of information about perforated materials in such areas as flow of gases and liquids over and through perforated plates, acoustical applications and filtration.

